

REMARKS

Claims 1-18 are all the claims currently pending in this Application.

Statement of Substance of the Interview

On October 10, 2007, Applicants' representative conducted a telephone interview with Examiner Jeffrey Piziali. During the interview, the Examiner indicated that an amendment to claim 1, to delete the phrase "non-zero" would require further consideration and/or search, and therefore would not be entered after final.

Claim Amendment

With this Amendment, Applicants amend claim 1 to remove the phrase "non-zero." As noted above, the Examiner has indicated that this Amendment would not be entered after final because it would require further consideration and/or search.

Therefore, Applicants note that any new grounds of rejection must be made in a new non-final Office Action under MPEP §706.07(b)¹.

35 U.S.C. § 112

Claims 1-18 are rejected under 35 U.S.C. § 112, first paragraph and second paragraph due to the addition, in the Amendment of April 9, 2007 of the phrase "non-zero".

¹ "it would not be proper to make final a first Office action in a continuing of substitute application where that application contains material which was presented in the earlier application after final rejection or closing of prosecution but was denied entry because (A) new issues were raised that required further consideration and/or search, or (B) the issue of new matter was raised."

With this Amendment, Applicants amend claim 1 to remove the phrase “non-zero.”
Therefore, Applicants respectfully request that the §112 rejections of claims 1-18 be reconsidered and withdrawn.

35 U.S.C. § 103(a)

Claims 1-18 are rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Norman (U.S. Patent 5,719,589) in view of Sumi (U.S. Patent 6,169,532).

•Norman fails to disclose or suggest “during a reset period after a scan period for scanning each scan line is complete and before scanning the following scan line is started, applying a first reset voltage to all of said scan lines and applying a second reset voltage that is greater than said first reset voltage to all of said drive lines”.

At page 5 of the Office Action, the Examiner asserts that Norman teaches the above-recited limitation of claim 1. The Examiner refers to V_R as a first reset voltage and to V_C as a second reset voltage.

Applicants respectfully submit that the Examiner is incorrect.

According to Norman, during a drive period, for an LED 15 which is selected to emit light, a current source 37 is applied on a column terminal 14 (drive line) and a regular power source 45 is applied on row terminal 13 (scan line). *At the same time*, for those LEDs which are not lit, a column rest potential V_C is applied to a column terminal (drive line), and a row rest potential V_R is applied to a row terminal (scan line).

Thus, first, Norman fails to teach “a reset period *after* a scan period.” It is clear that the time during which the column rest potential V_C and the row rest potential V_R are applied to the unlit LEDs, *is the same time* as the current source 37 and the regular power source 45 is applied to an LED 15 to be lit. Thus, this is not *after* a scan period, but rather *during* a scan period.

Second, even assuming *arguendo* that Norman taught a reset period after a scan period, Norman still fails to teach “applying a first reset voltage *to all of said scan lines*” or applying a second reset voltage ... *to all of said drive lines*”. It is clear from Norman that the column rest potential V_C is not applied to all of the column terminals (drive lines), (it is not applied to the drive line attached to the lit LED 15) but rather is only applied to those column terminals which are not connected to an LED to be lit. Similarly, it is clear that the row rest potential V_R is not applied to all of the row terminals (scan lines), (it is not applied to the scan line attached to the lit LED 15) but rather is only applied to those row terminals which are not connected to an LED to be lit.

Third, even assuming *arguendo* that Norman taught a reset period after a scan period and that Norman taught applying V_C to all of the column terminals and applying V_R to all of the row terminals, Norman still fails to teach “applying a second reset voltage *that is greater than said first reset voltage* to all of said drive lines.” Specifically, V_C is applied to column terminals (drive lines) and V_R is applied to row terminals (scan lines). It is specifically taught that “the row rest potential [V_R] should be higher than the column rest potential [V_C] so that each of the diodes spends some time in a reverse biased condition.” Thus, it is clear that the column rest potential

V_C (which the Examiner compares to the second reset voltage because it is applied to the drive lines) is *less than* the row rest potential V_R (which the Examiner compares to the first reset voltage because it is applied to the scan lines).

•Sumi fails to disclose or suggest “during a reset period after a scan period for scanning each scan line is complete and before scanning the following scan line is started, applying a first reset voltage to all of said scan lines and applying a second reset voltage that is greater than said first reset voltage to all of said drive lines”.

Sumi fails to remedy the above-discussed deficiencies of Norman.

Sumi fails to teach “a reset period after a scan period for scanning each scan line” as recited in claim 1. At page 5 of the Office Action, the Examiner refers to a period between image display frames of Sumi as the claimed “reset period.” However, a period between image display frames does not occur “after a scan prior for *each* scan line”, rather a period between image display frames only occurs after the *bottom* scan line representing one image frame.

•Further, one of skill in the art at the time of the invention would not have been motivated to combine the Norman and Sumi references.

In contrast to the apparatus of the present invention and that of Norman, Sumi is directed to an active drive type apparatus (col. 1, line 16), in which only an interlayer insulation layer is provided between the scanning lines and the drive lines. The purpose of the refresh period of Sumi, which happens after only a bottom scan line, is to reduce the electric consumption by the drain driver performing the re-writing operation when the EL display apparatus displays the still

image (col. 13, lines 63-66). This is related to the operation of the active drive type apparatus and would not apply to the apparatus of Norman.

Therefore, in view of the differing structures and light emission operations, one of skill in the art at the time of the invention, would not be motivated to combine the Norman and Sumi references.

•Applicants respectfully request that the rejection of claims 1-18 over Norman and Sumi be reconsidered and withdrawn.

As noted above, neither reference, either alone or in combination teaches or suggests the claimed limitation of “during a reset period after a scan period for scanning each scan line is complete and before scanning the following scan line is started, applying a first reset voltage to all of said scan lines and applying a second reset voltage that is greater than said first reset voltage to all of said drive lines.”

Therefore, Applicants submit that claim 1 is patentable over the cited references and that claims 2-18 are patentable at least by virtue of their dependence.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. § 1.114(c)
U.S. Application No. 10/759,279

Q79062

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Respectfully submitted,

/ Laura Moskowitz/

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE

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CUSTOMER NUMBER

Laura Moskowitz
Registration No. 55,470

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